# Zoomorphology

An International Journal of Comparative and Functional Morphology

olume 103 1983

ditors

Ax, Göttingen

V. Bock, New York

R.B. Clark, Newcastle upon Tyne

I.-R. Duncker, Giessen

. Eakin, Berkeley

). Kraus, Hamburg

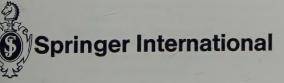
N. P. Kristensen, Copenhagen

G. Kümmel. Karlsruhe

H.W. Levi, Cambridge, USA

R.M. Rieger, Chapel Hill

V. Ziswiler, Zürich



# Copyright

It is a fundamental condition that submitted manuscripts have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature, and translations. Photographic reproduction, microform, or any other reproduction of text, figures, or tables from this journal is prohibited without permission obtained from the publisher.

The use of general descriptive names, trade names, trade marks, etc., in this publication, even if the former are not specifically identified, is not to be interpreted as exempt from the relevant protective laws and regulations and may accordingly be used freely by anyone.

## Special Regulations for the USA

The Article Fee Code on the first page of an article in this journal indicates the copyright owner's consent that in the USA copies may be made for personal or internal use, provided the stated fee for copying beyond that permitted by Section 107 or 108 of the United States Copyright Law is paid through the Copyright Clearance Center, Inc., 21 Congress Street, Selem, MA 01970, USA.

It a code does not appear copies of the article may be made without charge, provided permission is obtained from the publisher.

The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

# Other Regulations

Authors of this journal can benefit from library and photocapy fees collected by VG WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin it is recommended that he contact Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2, for detailed information.

### Printers

Springer-Verlag, Berlin·Heidelberg·New York Printed in Germany by Universitätsdruckerei H. Stürtz AG, Würzburg © by Springer-Verlag, Berlin·Heidelberg 1983

# Contents

Alberti, G., Storch, V.: Fine Structure of Developing and Mature	
Spermatozoa in <i>Tubiluchus</i> (Priapulida, Tubiluchidae)	219
Carle, K.J., s. Ruppert, E.E.	193
Downing, H.A., s. Jeanne, R.L., et al.	149
Guse, GW.: Ultrastructure, Development, and Moulting of the	,
Aesthetascs of Neomysis integer and Idotea baltica (Crustacea,	
Malacostraca)	121
Hallberg, E., Nilsson, DE.: The Euphausiid Compound Eye	121
- A Morphological Re-Investigation (Crustacea: Euphausia-	
cea)	59
Jeanne, R.L., Downing, H.A., Post, D.C.: Morphology and	37
Function of Sternal Glands in Polistine Wasps (Hymenop-	
tera: Vespidae)	149
Märkel, K., Röser, U.: Calcite-Resorption in the Spine of the	147
Echinoid Eucidaris tribuloides	43
Märkel, K., Röser, U.: The Spine Tissues in the Echinoid Euci-	43
daris tribuloides	25
Martin, G.G., Romero, K., Miller-Walker, C.: Fine Structure	23
of the Ovary in the Red Abalone <i>Haliotis rufescens</i> (Mollusca:	
Gastropoda)	89
Miller-Walker, C., s. Martin, G.G., et al.	89
Nilsson, DE., s. Hallberg, E.	59
Olsson, R.: Club-Shaped Gland and Endostyle in Larval <i>Bran-</i>	39
chiostoma lanceolatum (Cephalochordata)	1
Pfannenstiel, HD., s. Wachmann, E., et al.	165
Post, D.C., s. Jeanne, R.L., et al.	149
Riser, N.W., s. Westheide, W.	67
Röser, U., s. Märkel, K.	
Romero, K., s. Martin, G.G., et al.	89
Ruppert, E.E., Carle, K.J.: Morphology of Metazoan Circula-	07
	193
tory Systems	103
Ruppert, E.E., s. Turbeville, J.M	165
Shelton, P.M.J., s. Wachmann, E., et al	219
Storch, V., s. Alberti, G	219
Takasu, N., Yoshida, M.: Photic Effects on Photosensory Micro-	
villi in the Seastar Asterias amurensis (Echinodermata: Aster-	125
oida)	135
Turbeville, J.M., Ruppert, E.E.: Epidermal Muscles and Per-	
istaltic Burrowing in Carinoma tremaphoros (Nemertini): Cor-	102
	103
Wachmann, E., Pfannenstiel, HD., Wellmann, H., Shelton,	
P.M.J.: Morphogenesis of Open Rhabdoms in Ommatidia	
of Leptinotarsa decemlineata and Crioceris asparagi (Coleop-	1.55
tera: Chrysomelidae)	165

Wasserthal, L.T.: Haemolymph Flows in the Wings of Pierid Butterflies Visualized by Vital Staining (Insecta, Lepidoptera) Weissenfels, N.: Bau und Funktion des Süßwasserschwamms Ephydatia fluviatilis (Porifera). X. Der Nachweis des offenen	177
Ephyaatia Juviatius (Politera). A. Dei Wachweis des offenen	
Mesenchyms durch Verfütterung von Bäckerhefe (Saccharo-	4.0
myces cerevisiae)	13
Wellmann, H., s. Wachmann, E., et al	165
Welsch, U.: Freeze Fracture- and TEM-Observations on the	
Plasma Membrane and Associated Structures of the Epider-	
mis of Branchiostoma lanceolatum (Cephalochordata)	209
Westheide, W., Riser, N.W.: Morphology and Phylogenetic Rela-	
tionships of the Neotenic Interstitial Polychaete Apodotrocha	
progenerans n.gen., n.sp. (Annelida)	67
Yoshida, M., s. Takasu, N	135

Indexed in Current Contents